

- 11 -

Claims

1. Reactor (1; 1A) for solid phase synthesis comprising a vessel (2), a filter (3; 3A; 3B; 3C; 3D) arranged in the vessel (2) and a filtrate outlet (4) for evacuating the filtrate out of the filter, the filter being connected to the filtrate outlet (4), characterized in that it
5 comprises means (3; 4; 3A; 3B; 3C; 3D) for delivering a gas into the vessel (2) in a region of the vessel (2) near to the bottom (24) of the vessel (2) and beside the filter (3; 3A; 3B; 3C; 3D).
2. Reactor (1; 1A) according to claim 1, characterized in that the filter comprises a filter cartridge (3; 3A; 3B; 3C; 3D), preferably a filter candle.
- 10 3. Reactor (1; 1A) according to claim 2, characterized in that the filter cartridge (3; 3A; 3B; 3C; 3D) comprises an intermediate bottom (32; 32D) separating the filter cartridge (3; 3A; 3B; 3C; 3D) in a lower chamber (31; 31D) connected to the filtrate outlet (4) and an upper chamber (30; 30D); and a one-way valve (33; 33D) connecting the upper chamber (30; 30D) with the lower chamber (31; 31D) such that the intermediate
15 bottom (32; 32D) is pervious in direction from the upper chamber (30; 30D) to the lower chamber (31; 31D) but not in direction from the lower chamber (31; 31D) to the upper chamber (30; 30D).
- 20 4. Reactor (1; 1A) according to claim 3, characterized in that the filtrate outlet (4) comprises a gas inlet (40; 40A) for delivering the gas into the vessel (2) through the lower chamber (31; 31D) of the filter cartridge (3; 3A; 3B; 3C; 3D).
5. Reactor (1; 1A) according to one of claims 1 to 4, characterized in that the vessel (2) comprises a plurality of filters (3; 3A; 3B; 3C; 3D).
6. Reactor (1; 1A) according to one of claims 1 to 5, characterized in that the vessel (2) comprises a double casing (20) for temperature regulation.
- 25 7. Reactor (1; 1A) according to one of claims 1 to 6, characterized in that the filter (3; 3A; 3B; 3C; 3D) or filters comprise a slotted screen filter medium.
8. Reactor (1; 1A) according to one of claims 1 to 7, characterized in that the vessel (2) comprises a filtrate inlet (21) connected to the filtrate outlet (4) such that the filtrate can return from the filtrate outlet (4) via the filtrate inlet (21) into the vessel (2).
- 30 9. Reactor (1; 1A) according to one of claims 1 to 8, characterized in that the vessel (2) comprises an exhaust (22; 22A) connected to the means (3; 4; 3A; 3B; 3C; 3D) for delivering the gas such that the exhausted gas can return back into the vessel (2).

- 12 -

10. Reactor (1; 1A) according to one of claims 1 to 9, characterized in that it comprises a cascade of vessels (2) each comprising an exhaust (22; 22A), which vessels (2) are connected together in such a way that the exhaust (22; 22A) of one vessel (2) is connected to the means (3; 4; 3A; 3B; 3C; 3D) for delivering the gas of the following
5 vessel (2).